

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all previously-filed claim listings.

1-14. (Canceled).

15. (Previously Presented) A method of providing direct blood flow between a heart chamber and a coronary vessel, the method comprising the steps of:

inserting an instrument through an anterior wall of the coronary vessel;
further inserting the instrument through a posterior wall of the coronary vessel and a heart wall between the heart chamber and the coronary vessel to form a passageway in the heart wall; and
radially expanding an implant within the passageway.

16. (Previously Presented) The method of claim 15, wherein the implant includes a stent.

17. (Canceled).

18. (Previously Presented) The method of claim 15, wherein expanding the implant includes expanding the implant from a collapsed configuration.

19. (Previously Presented) The method of claim 15, wherein the passageway in the heart wall is formed via one of lasing, drilling, and boring.

20. (Previously Presented) The method of claim 15, wherein inserting the instrument includes inserting an incising instrument.

21. (Previously Presented) The method of claim 15, wherein expanding the implant includes expanding an implant carrying a substance for delivery to the heart wall.

22. (Previously Presented) The method of claim 21, wherein the substance is chosen from angiogenesis factors and nucleic acid instructions for angiogenesis factors.

23. (Previously Presented) The method of claim 21, wherein the substance is for at least one of generating, stimulating, and enhancing blood vessel formation.

24. (Previously Presented) The method of claim 15, further comprising inserting the implant in the passageway via a catheter.

25. (Previously Presented) The method of claim 24, further comprising advancing the catheter to the passageway via the heart chamber.

26. (Previously Presented) The method of claim 15, further comprising removing the instrument from the heart wall prior to expanding the implant in the passageway.

27. (Previously Presented) The method of claim 15, further comprising advancing the implant past the posterior wall of the coronary vessel and into the passageway.

28. (Previously Presented) The method of claim 27, further comprising advancing the implant past the anterior wall of the coronary vessel.

29. (Previously Presented) The method of claim 15, wherein the implant does not extend substantially along an axial direction of the vessel.

30-72. (Canceled).

73. (New-Withdrawn) A system for placing a guide member through the wall of a patient's heart so that the guide member extends through a coronary vessel and the wall of the heart into a heart chamber, the system comprising:

an introducer sized and configured for placement through a coronary vessel and the wall of a patient's heart into a heart chamber;

a guide member sized and configured to be positioned in the introducer and placed through the coronary vessel and the heart wall into the heart chamber, the guide member having a proximal portion adapted to remain outside the heart and a distal portion adapted to be passed into and then back out of the heart chamber; and

means for removing the guide member from the heart chamber;

wherein the guide member is passed through the introducer and moves through the coronary vessel and the heart wall to a location within the heart chamber.

74. (New-Withdrawn) The system of claim 73, wherein the introducer is a hollow sleeve, the guide member is a guide wire, and the distal portion of the guide wire includes a distal end that is passed through the introducer.

75. (New-Withdrawn) The system of claim 73, wherein the guide member comprises a guide wire coupled to a catheter.

76. (New-Withdrawn) A system for placing a guide member through the wall of a patient's heart so that the guide member extends through a coronary vessel and the wall of the heart into a heart chamber, the system comprising:

an introducer sized and configured for placement through the coronary vessel and wall of a patient's heart into a heart chamber;

a guide member sized and configured to be passed through the coronary vessel and the heart wall into the heart chamber, the guide member having a proximal portion adapted to remain outside the heart and a distal portion adapted to be passed into the heart chamber; and

means for removing the guide member from the heart chamber;

wherein one of the introducer and the guide member is configured to direct the distal portion of the guide member to a predetermined location within the heart chamber upon introducing the guide member into the chamber.

77. (New-Withdrawn) A system for delivering a conduit into the wall of a patient's heart to communicate a coronary vessel with a heart chamber, the system comprising:

an introducer configured for placement through the heart wall and into a heart chamber;

a guide member sized and configured to be positioned in the introducer and placed through the heart wall into the heart chamber, wherein the guide member is a guide wire; and

a conduit sized and configured for placement in the wall of the heart so as to communicate the heart chamber with a coronary vessel, the conduit configured to be coupled to the guide wire for delivery into the heart chamber and placement in the wall of the heart,

wherein the conduit is supported by a delivery device that is coupled to the guide wire.

78. (New-Withdrawn) The system of claim 77, wherein the guide wire is coupled to the conduit.

79. (New-Withdrawn) A system for delivering a conduit into the wall of a patient's heart to communicate a coronary vessel with a heart chamber, the system comprising:

an introducer configured for placement through the heart wall and into a heart chamber;

a guide member sized and configured to be positioned in the introducer and placed through the heart wall into the heart chamber;

a conduit sized and configured for placement in the wall of the heart so as to communicate the heart chamber with a coronary vessel, the conduit configured to be coupled to the guide wire for delivery into the heart chamber and placement in the wall of the heart; and

means for removing the guide member from the heart chamber.

80. (New-Withdrawn) The system of claim 79, wherein the guide member is a guide wire.

81. (New-Withdrawn) The system of claim 80, wherein the guide member is coupled to the conduit.

82. (New-Withdrawn) The system of claim 81, wherein the conduit is supported by a delivery device that is coupled to the guide wire.

83. (New-Withdrawn) A method for placing a conduit in the wall of a patient's heart to establish a blood flow path between a coronary vessel and a heart chamber, the method comprising steps of:

(a) positioning a guide member that extends through the coronary vessel and the heart wall into a heart chamber;

(b) using the guide member to deliver a conduit into the heart chamber; and

(d) positioning the conduit in the heart wall to establish a blood flow path between the heart chamber and the interior of the vessel,

wherein step (a) is carried out by passing a first end of the guide member through the vessel and the heart wall into the heart chamber and then passing the first end of the guide member back out of the heart chamber, wherein the first end of the guide member is then used to deliver the conduit.

84. (New-Withdrawn) The method of claim 83, wherein step (b) is carried out by coupling the conduit to the first end of the guide member and moving the first end of the guide member and the conduit into the heart chamber.

85. (New-Withdrawn) The method of claim 84, wherein step (a) is carried out while maintaining a second end of the guide member outside the heart.

86. (New-Withdrawn) The method of claim 83, wherein step (b) is carried out by sliding the conduit over the first end of the guide member and along the guide member into the heart chamber.

87. (New-Withdrawn) The method of claim 83, further comprising removing the guide member from the heart chamber after the conduit has been positioned in the heart wall.

88. (New-Withdrawn) The method of claim 83, wherein the conduit comprises a stent movable between collapsed and expanded orientations, and step (c) is carried out

by placing at least a portion of the stent in the heart wall and then moving the stent to its expanded orientation.

89. (New-Withdrawn) The method of claim 83, wherein the conduit is covered by a sheath, and further comprising covering at least a portion of the conduit while placing the conduit in the heart wall and then removing the sheath.

90. (New-Withdrawn) The method of claim 83, wherein the coronary vessel is a coronary artery and the heart chamber is the left ventricle.

91. (New-Withdrawn) The method of claim 90, wherein the conduit is positioned in the heart wall so that the conduit extends into the lumen of the coronary artery and the interior of the left ventricle.

31. (New-Withdrawn) A method for placing a conduit in the wall of a patient's heart to establish a blood flow path between a coronary vessel and a heart chamber, the method comprising steps of:

(a) positioning a guide member that extends through the coronary vessel and the heart wall into a heart chamber;

(b) using the guide member to deliver a conduit into the heart chamber; and

(c) positioning the conduit in the heart wall to establish a blood flow path between the heart chamber and the interior of the vessel;

wherein the conduit is covered by a sheath, and further comprising covering at least a portion of the conduit while placing the conduit in the heart wall and then removing the sheath.